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ITS SANITARY AND POLITICAL ASPECT IN RELATION TO THE  
SPREAD OF EPIDEMIC DISEASES.

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By J. C. LEHARDY, M.D., of Savannah.

From the Transactions of the Medical  
Association of Georgia.



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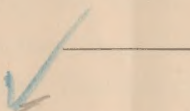
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*Mr. President and Gentlemen:*

The terrible pestilence which has again devastated the valley of the Mississippi, coming as it did, so soon after its visitation upon Georgia and Florida, has so terrified and appalled the people of the South Atlantic and Gulf States, that, regardless of their liberties, regardless of their future prosperity, and in fact forgetting everything but their peril, they are ready to clutch at anything proffered, which holds out even the least hope of security against the return of the scourge, and are thus a ready prey to unscrupulous politicians.

This being the frame of mind in which we now find the people of these States, it behooves every medical man South, who has had personal experience in the treatment of yellow fever, and who has made a study of *the disease and its causes*, to bring forward whatever information he may have gathered, to instruct the community and enlighten the masses on the true nature of the pestilence, and to express fearlessly his views as to the best and surest means of prevention, that they may be able to provide for themselves the best means of protection against its future ravages.

Ruined by a long and bloody war—robbed of our slave property, with our rights and liberties trampled upon by unscrupulous carpet-bag politicians, who have fed on our carcass for many years—it is time that our best men should be at the wheel and pilot our own ship into a safe harbor.

At a time when the head of the Government holds his seat by fraud—when the whole governmental machinery is corrupt—it behooves our people, to look well before giving their assent to propositions of such political importance as “Central Quarantine.” When centralization seems to be the order of the day—when most politicians are actuated, not for the good of the country, but for self-aggrandizement and profit—it is well that the medical fraternity should analyze such propositions, not only as professional men, but as citizens.

Guided by these feelings, I propose to investigate with you the subject of the quarantine now about to be forced upon us “to prevent the importation of yellow fever into the United States.”

Ever since the epidemic in Savannah, in 1876, the old theory of “Contagion and Foreign Origin” of the yellow fever has not only been revived and widely promulgated through medical papers and the public press, but its advocates, regardless of everything save the advancement of their own views and purposes, have already succeeded, through the exertions of our own representatives, in having enacted by the Senate and House of Representatives, a law “*to prevent the introduction of contagious and infectious diseases into the United States.*”

This law, devised by some of our best men, provides only thus far: “that vessels or vehicles coming from any foreign port or country, where any contagious or infectious disease may exist, shall not enter any port of the United States, or

pass the boundary lines." It does not imply interference with the existing State or municipal quarantine system, yet, in section five, we find that officers and agents of the State or municipal authorities, "*shall be clothed with all the powers of federal officers for quarantine purposes,*" and will thus come under the control of the Surgeon General of the United States Marine Hospital Service. And it is evident that strenuous efforts are still being made, to establish in Washington, a Quarantine Bureau, under one name or another, which, if ever established, will have "*central authority*" over all the vessels coming into or going from our sea-ports—*with discriminative powers.*

To this centralization of power, sufficient in itself to make or destroy, through its quarantine regulations, the commercial prosperity of any seaport of the country, *I am entirely opposed* ; and I earnestly hope that I may succeed in convincing you and every thinking man in this broad land, that such a quarantine system as that contemplated by the "Board of Experts," will not only prove a powerful engine for shackling the liberties of our section, putting a barrier in the way of our future progress, besides being ruinous on account of the immense outlay required to establish and make it efficient—but that it will fail in its *avowed object* ; the keeping from our shores a disease which, from the time of Valentine, Rush, Davidge, McClean, etc., in 1793-4-5-6, etc., to the present day, has been found by almost every unbiassed inquirer, who has had the *opportunity of observing several epidemics*, to have originated from domestic causes.

Let us examine the grounds of the strong feeling of confident security in the preventive power of quarantine, which the advocates of contagion and importation have been able



to arouse in the minds of the people North, South, East and West.

Some time after the subsidence of the epidemic of 1876, the State Board of Health—composed of men of well-known ability and deserved reputation, but who, with a few exceptions, had never witnessed an epidemic of yellow fever—met in Savannah and spent several days in examining places and persons, with the object of ascertaining the causes and origin of the disease. After declaring “the sanitary condition of Savannah and its surroundings to be exceedingly objectionable and prejudicial to public health, and wondering that malarial and other fevers did not alone decimate the population of that beautiful city,” under the head of evidences in favor of the “importation of the disease,” they show, 1st, “that yellow fever was epidemic in Havana and other ports on the island of Cuba, during the months of June, July and August. 2d. That vessels from infected ports arrived at the port of Savannah immediately before and during the early development of the epidemic. In the month of July three vessels arrived from ports which were infected with yellow fever. One of these discharged 100 tons of ballast at the Central Railroad wharf, and her crew of fifteen men, with their mattresses, blankets and clothing, went into lodging houses in the western (?) portion of the city. Two of the vessels discharged 190 tons of ballast at the Atlantic and Gulf Railroad wharf, and their crews, consisting of twenty-four men, and bedding, went into the lodging house of Mrs. Redgate, which is situated one square from the block first infected in the city. During the month of August, 1876, between the 2d and the 28th of the month, four (4) Spanish vessels arrived at Savannah from Havana, where yellow fever was epidemic. Three of these vessels discharged 500 tons of ballast at the Atlantic and Gulf Railroad wharf, and



their crews of forty men went into sailor boarding houses (probably Mrs. Redgate's) in the eastern portion of the city.

"These seven vessels had all been detained at quarantine for a variable period of from three to forty days; the length of detention being regulated by the health officer.

"Were either of these vessels infected with yellow fever? Dr. McFarland, health officer, testifies that on the 'Maria,' one man had fallen from the mast-head and was killed; that in the 'Maria Carlina,' one man was missing, reported to have died of cholera morbus, and one man was taken sick, three days after arrival at Tybee, with malarial fever. (The same man contracted yellow fever in Savannah, Oct. 9th.) This vessel was thoroughly fumigated.

"From the bark 'Olympia,' upon which vessel a case of yellow fever was known to have occurred, infection could have reached the city *only* by unauthorized communication with the vessel, as she was detained at quarantine forty days.

"The only fact connected with these vessels of interest to epidemiologists, which is at present absolute, is, that they cleared from a port infected with yellow fever, and that prior to their arrival at the port of Savannah, no authenticated cases of the disease had occurred in the city."

"The Cuban history of these vessels is absolutely unknown."

"It seems an absolute fact that no case of yellow fever arrived at Savannah upon any of these vessels. None of the first cases at Savannah could be traced to absolute contact with these vessels."

"The first case, Schull, (?) of the schooner 'Severs,' was not known to have gone on board either the 'Inez,' or

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(?) Schull's case is a dubious case. Dr. Wm. Duncan reported it as one of congestive fever. In the *post mortem* examination, reported by Dr. G. H. Stone, the lungs were found filled with *bright red blood*, and this condition of the blood could hardly be found, the fifth day, in a case of yellow fever.

the 'Maria,' but he was taken sick after the 'Severs' had been, for some days, at the same wharf with them.

"The boy Cleary positively denies that he or any of his comrades ever went on board of these vessels." But Cleary was taken sick with the disease after he had gone many times to dig among the ballast discharged from these vessels."

Founding his strong appeal in favor of importation, on the above evidence, Dr. E. McClellan, of the U. S. A., in his report published by the State Board of Health, exclaims: "What stronger chain of circumstantial evidence could be forged? Time and future investigations may add facts which will amount to absolute proof of infection."

What did future investigation reveal?

Dr. A. Woodhull, of the U. S. A., who, as he states, was an importationist, "by education," and who was present at the meetings of the State Board of Health during its sittings in Savannah, not feeling satisfied with the conclusion deduced from the evidence received, determined to acquaint himself with such facts as would demonstrate the "importation" or "local origin" of the poison. He therefore used every means and made every exertion to arrive at the truth by personal inspection of records, persons and places, and published the result of his researches in the July number of the *American Journal of Medical Science* for 1877, pp. 17 to 54.

On page 33 to the question, "Was the disease imported?" we read: "After investigating the official records of vessels arrived at this port after the 15th of May: We are thus reduced to the four Spanish vessels named, to find the direct importer. All of these came in ballast and brought no goods except the personal effects of the seamen."



The following table embraces all the facts belonging to this port on the subject :

VESSELS.	TIME IN PORT	WHARF.	DISCHARGED.		DISPOSITION OF PERSONS.		
			Ballast.	Bedding	Mrs. Redgate	Mr. Ruez	Mr. Yban- ez.
Nueva Igna- cia.....	13 July to 2 Aug. 28 days.....	C R. R.	100 tons	11	13 sailors	Captain & mate.	.....
Ynez.....	16 to 28 July, 12 days.....	A. & G. R R....	50 tons	8	7 sailors	Captain & mate.	.....
Maria .....	17 July to 2 Aug 16 days.....	A. & G. R. R....	140 tons	11	11 sailors	Mate.	Cap- tain.
Pepe.....	2 to 9 Aug. 7 days.....	C. R. R.	50 tons	6	6 sailors	Captain, mate and 1 pass'r.	.....
Total .....	4. 13 July to 9 Aug. 27 days.		340 tons	36	37 sailors	8.	1.

"It is established by the Consul's records that all persons who arrived on these vessels departed on them in good health, and not one of them was seriously ill while in Savannah. This has been carefully traced out, which the small number of houses involved, made quite practicable.

"The Spaniards, then, are certainly not agents in the sense that the disease would be, in the propagation of the distemper.

"Whether the bedding is equally free from blame, cannot so certainly be established. Thirty-six mattresses and blankets were carried from the wharves to Mrs. Redgate's, and again from Mrs. R's. to the wharves. If the passage of this bedding was capable of spreading the disease, it is as likely to have occurred in one place as in another. If it was an agent in its introduction, the disease should have early shown itself in that house, where it was in use every night. But we find that the first case of yellow fever in that house—being Mrs. Redgate herself—occurred on the 30th of August, when the area of general infection from the Wright street center, distant about 285 yards northeast, was sufficiently advanced to embrace it.

"I can find no evidence that this bedding infected the localities through which it was transported, nor, indeed, the very house in which it was all concentrated, and I therefore throw out Spanish bedding as an infecting agent.

"So far as personal importation is concerned, it seems established that there is no evidence that the yellow fever poison was introduced from abroad. But there is another question that requires to be settled. This is, the possibility of what may be called indirect importation through the ballast from Cuba.

"If the simple disturbance of sand from an uninhabited shore will generate the fever poison, the explanation is a possible one; but why is it not a matter of common record for yellow fever to occur on the various vessels arriving in America with West Indian ballast.

"It has been a matter of extreme difficulty to learn the exact source whence this ballast was taken. I however found, through the masters of Spanish vessels, that the ballast is brought from a locality southwest of Regla and about two miles from the harbor (of Havana)."

This is entirely confirmed by Dr. Belot, of Havana, who says: "The gray ballast referred to is a native rock taken from the side of a hill in West Regla, about forty feet above the level of the sea. It does not contain any debris or organic matters whatever. I do not believe," he adds, "that the fresh ballast referred to will, of itself, in any way influence the development of yellow fever. If such was the case, the disease would manifest itself as soon as the ballast is taken in." Dr. Woodhull concludes with: "In view of the conditions just cited, I believe that the possibilities are against Cuban ballast playing any important part in the causation of the epidemic, and that the view of its indirect importation may be dismissed."



If, in addition to this detailed study by Dr. Woodhull, we take into consideration the fact brought forward by Dr. J. B. Read, than whom there is no better judge of yellow fever, but who was in Europe at the time the State Board of Health and Dr. Woodhull made their investigations, that on the FIFTH day of June he saw the son of H. B. Dresser, living on Jones street, who had a mono-paroxysmal fever, attended with black vomit and great prostration, and considered by him as a case of sporadic yellow fever; that on the 14th of June he attended Edward McGlowan, on Liberty street, who died of yellow fever on the 22d; that Daniel Sullivan's daughter was taken sick on the 12th of July and died on the 14th with the same disease, and that Reverend father Cafferty was taken sick with yellow fever on the 14th of August and recovered. And again, if we take into further consideration the mortuary records for 1876, we find that the number of deaths from miasmatic fevers, excluding yellow fever was 396 against 162 in 1875, the theory of contagion and importation, so far as Savannah is concerned, must yield like quicksand beneath the weight of investigation.

Under the supposition that the disease *might have been imported*, the State Board of Health recommended quarantine as a means of preventing invasions of yellow fever.

In Fernandina in 1877, the origin of yellow fever was ascribed by a committee of investigation, to importation, in the face of the opinion of several competent physicians, among whom may be mentioned Dr. Robert D. Murray, of Key West, Surgeon U. S. M. H. S. (annual report Superv. Surg. Gen'l M. H. S., p. 191), who was at the time ministering to the sick in "Old Town," and who after diligent enquiry, found abundant cause for the epidemic in the sanitary condition of the city and its environs. Believing in

the importation theory, the Mayor of Jacksonville called the convention through whose recommendations the law establishing a "National quarantine to prevent the introduction of contagious or infectious diseases into the United States," was passed by Congress.

On such a foundation was built the existing *national quarantine law*.

We will now analyze the evidence upon which the Yellow Fever Commission, and the Board of Experts appointed by Congress, have established the theory of the importation of the yellow fever poison into New Orleans in 1878. From Prof. Joseph Jones' clinical lectures (N. O. Med. Journal for February and March), I take the following: "A minute examination of the official records discloses that but three vessels infected with yellow fever arrived at the Mississippi quarantine station during the months of May, June and July."

"(1.) The steamer Emily B. Souder arrived at quarantine May 22d, was detained six hours, and was fumigated with burnt sulphur in pans. She arrived the same day in the city, and presented a clean bill of health to the custom house authorities. Clark, purser of the boat was sick, but passed inspection as suffering merely from neuralgia. Clark was taken in a cab to the corner of Claiborne and Bienville streets, where he died in convulsions, the next day. Clark was attended whilst on board the ship, and in New Orleans, by Dr. Drew, a physician familiar with yellow fever, who affirmed in his certificate of death, that it was a case of malarial fever."

"Tom Elliott, engineer of the E. B. Souder, was taken sick at a sailors' boarding house No. 22 Girard street, corner of Front, on the 24th of May, and was attended by Dr.



Loeber, who regarded his case as one of malarial fever. Elliott was removed to the Hotel-Dieu-hospital on the evening of May the 29th, where he died in a few hours. This case was declared to be yellow fever by the President of the Board of Health, "from the appearance of the body after a *post mortem* examination, made by two physicians." Disinfection with sulphurous acid and carbolic acid was made within and around the houses where Clark and Elliott had been sick, *and no cases followed within the period usual for the spread of yellow fever.*

(2.) "The British steamer Borussia left Havana on the 18th of May, arrived at the Mississippi quarantine station on the 21st, with five cases of yellow fever, (two passengers and three of the crew,) of which three died, in the quarantine hospital. The crew of the Borussia numbered 47 and the passengers 51. This vessel was detained eleven and a half days at the quarantine station, was fumigated four hours each day during that period with sulphurous acid gas. The cargo was not removed. No other cases are known to have occurred on this steamship. Most of the passengers went to Texas."

(3.) "On the 28th of July the schooner F. L. Richardson arrived at the quarantine station with three cases of yellow fever on board. But as this vessel arrived at quarantine after the beginning of the epidemic, we are thrown back on the Souder and Borussia, one reaching the city on the 22d of May, the other on the 2d of June."

"There were no other cases of the disease known to have occurred in the city until the 11th of July, when the epidemic proper commenced, in a house situated two blocks away from the place where Elliott died." (Dr. E. Yonge's Report to Mayor of Savannah.)

This, I believe, is the only evidence produced by the

“Commission” and the “Board of Experts” in proof of the foreign origin of the epidemic.

The “poison,” the “germ” or “contagion” must have remained inert from May 22d, or June 2d, to the 11th of July—that is from forty to forty-eight days, and then burst forth, not in the houses where Clark or Elliott died, but at a distance of two blocks, making its appearance simultaneously in various parts of the city.

It is upon this evidence, gentlemen, that the Yellow Fever Commission offered the following resolutions before the American Health Association, and managed to receive the endorsement of thirty-three out of the forty-four members *present at the meeting on that day*:

(1) “Yellow fever of 1878 was a specific disease, not indigenous or originating that year spontaneously in the United States, and its appearance in this country was due to a specific cause.”

(2.) “Quarantine established with such rigor and precision as to produce *absolute non-intercourse* will prevent the importation of the specific cause of yellow fever. (Italics mine.)

(3.) “It is the duty of the General Government to aid in the establishment of a practicable and proper quarantine by all means in its power.”

The executive committee of the American Health Association, aided by the advisory committee on legislation, declared, nevertheless, that “they were unwilling to take upon themselves to formulate any system of *quarantine, which might do more harm than good.*” . . . “that it was desirable that Congress should organize a provisional National Health Commission,” etc.

This led to the appointment, by Congress, of a Board of Experts.



The work of this Board was planned by the joint committee of the Senate and House of Representatives for Epidemic Diseases, and Surgeon-General Woodworth, the initiator and principal supporter of central quarantine, and former chairman of the Yellow Fever Commission, was appointed president of the board.

The work they had to perform was immense, and the time allotted to perform it very short. As a result of this, the investigation has proven superficial, incomplete, and very much "*one sided*."

All the members of the Board, with the exception of Dr. L. Falligant, the representative of homeopathy, appear to have believed in the exotic origin and contagion of yellow fever, and, as did the Yellow Fever Commission that preceded them in the same work, they overlooked all local causes; they mentioned not a word of the many villages, towns and cities, where refugees, cars, goods, etc., had come from infected places, and where persons had sickened or died of yellow fever without propagating the disease.

Their report contains very sweeping, and also contradictory, statements.

Of the many propositions laid down in answer to the first question propounded by the joint committee of Congress, I will only notice the one which is most pertinent to my subject:

After making the statement that "yellow fever has invaded the United States eighty-eight different years," they say (prop. 21) "for seventy-seven of these eighty-eight years we have evidence, more or less complete, of importation!" Where is the evidence upon which to make this remarkable assertion?

In a foot note p. 13 is found: "The historical statements

here given are such as we have been able to compile from easily accessible works." (!!)

To the general reader such an assertion would be sufficient to carry conviction in favor of importation. But the "easily accessible works" spoken of *must have been very carefully selected to enable them to make the statement*. In looking over the few books and pamphlets to which I have access, I find a number of well known writers who believe in the local origin of yellow fever because they can show local causes for it. These writers mention a considerable number of years, and of places, in which the domestic origin of the disease appears very clearly proven.

As this point is of considerable importance, I hope you will follow me patiently throughout, especially as all of my authors, being men who *acquired their experience in places where yellow fever was raging*, are entitled to full credit.

Taking as near as possible the epidemics as they occurred in the United States, in a chronological order, I find in La-Roche's great work on yellow fever, on page 768 and following, in vol. ii., that he refutes the importation theory as presented by its advocates, in 1793-7-8-9, 1805-19-20, and in 1853 in the city of Philadelphia, in a clear manner, and produces such facts in support of his assertions, with date and name of authors, as could leave no doubt in the mind of an unbiassed student.

On page 450 of the same volume he says: "I might, in addition, show that all the epidemics of this city (Philadelphia) from 1699 to 1854, all of those of New York, Boston, Baltimore, Mobile, Pensacola, etc., have arisen from domestic causes; that while some have been admitted on all sides to have been due to such agencies, importationists have failed, in regard to others, to prove the correctness of their views."

Doctor Drake, in the Topography and Diseases of the Valley of the Mississippi, gives full evidences of the local origin of the disease in New Orleans from 1791 to 1843, inclusive.

Of the epidemics of 1794-97, 1800, in Baltimore, Doctor Potter, on Contagion, page 21, says: "To every man of accurate observation, possessing the capacity of discrimination, the rise and progress of the great epidemics, as they appeared in Baltimore, would alone be sufficient to establish the domestic origin and non-contagious character of the yellow fever." These are also the views expressed by Deveze of the epidemic of 1793 in Philadelphia. (*Traite de la Fievre Jaune, Paris, 1820, page 311, etc.*) by Drs. Condie and Folwell, of the epidemic of 1801-5-19-20, in Philadelphia.

1796, Gallipolis, Ohio. "On the 15th of November the fever broke out in the garrison and in the village, some cases terminating fatally with black vomit. There was no communication with New Orleans at the time. The fever could not have been taken there from the Atlantic States, as my boat was the first boat which descended after the subsidence of the water." (Journal of a Voyage down the Ohio River in 1796, Andrew Elliott, page 13.) (Potter on Contagion, page 15.)

1798, New London. "It originated from local causes." Holt. (A Short Account of Yellow Fever as it appeared in New London, page 24.)

1806, Richmond, Va. Occurred in the penitentiary from local causes. There was no yellow fever in the city at the time. (*Medical Repository, X, p. 217.*)

1817, Charleston, S. C.—(Dr. Campbell Watts, p. 248.)

1819, Mobile.—(Watts' Report of Committee, pp. 272, 273, 274.)



1820, Bay of St. Louis.—(Merrill, *New Orleans Medical Journal*, VII, p. 7.)

1817, 1820, Savannah.—Dr. Daniell (Observations on Autumnal Fevers, p. 26) says: "The cause of its prevalence these years can be readily explained without resorting to contagion."

1820, Savannah.—Dr. Waring (in Report to City Council): "The epidemic arose from all the local and general causes which I have enumerated. I have inquired particularly into the question of importation, and there does not appear to be any reason for ascribing the disease to that source."

1821, Wilmington N. C.—"The yellow fever arose from local causes." (Dr. Hill, *Medical Recorder*, V, p. 85.)

1821, St. Augustine.—Arose along the river in low, damp places. (Strobel, p. 131-2.)

1823, Natchez, Miss.—"The first case occurred on the 18th of August. There were but two cases of yellow fever that year in New Orleans; the first one was reported on the 23d of the same month." (*Memphis Medical Journal*, Vol. III, p. 27.)

1825, Florida.—"Cases terminating in black vomit occurred fifty miles from the sea, traced to local causes on the plantation." (Dr. Hort, New York Quarantine, Reports, V, p. 88.) (LaRoche.)

1826, Apalachicola.—Here it occurred among men just arrived from Baltimore, where no yellow fever existed. They landed at a place where there was no settlement, and no communication with the West Indies. (New York Quarantine Reports, p. 183.) (LaRoche.)

1837, '39, '43, Mobile.—(See Dr. Nott, *New Orleans Journal of Medicine* IV, p. 565.)

1838, Charleston.—(Gaillard, Transactions American Medical Association, 1849, II, p. 579.)

1839, St. Augustine.—(Monette, p. 123.)

1842, '49, '52, Charleston.—“The cause of yellow fever is in perpetual existence in the summer atmosphere of Charleston.” (Simmons' *Charleston Medical Journal*, VIII, pp. 363, 364.)

1853, New Orleans.—(Dr. Hort, New York Report on Quarantine.) (LaRoche.)

1853-4-5, New Orleans.—(E. H. Barton, Report of Sanitary Commission.)

1853, Houston, Texas.—“So far as facts can be ascertained in Houston, they preclude the notion of its importation from abroad.” (Dr. Ashbel Smith, Transactions Medical Association, VII, p. 535.)

1854, Charleston.—(Dr. W. Wragg, *Charleston Journal*.)

1854, Philadelphia.—(LaRoche, Yellow Fever, *Philadelphia, Medical and Surgical Journal*, Oct. 8, 1859.)

1854, Savannah.—(Mayor's Report, Dr. McKall, *Charleston Medical Journal*, pp. 150, etc.)

Dr. R. D. Arnold, in his Essay on Billious and Yellow Fever, (1856, p. 9), says: “There was not any loop hole whereon to hang even a suspicion that (the first case) this man's disease had been contracted anywhere out of the city limits. No ‘low,’ long, black-hulled schooner had just arrived from the West Indies to afford an easy solution.”

1854, Ossabaw Island.—“It occurred among the crew of a United States vessel, from some local causes, on the island.” (Capt. Newell, Dr. Waring's report.)

1856, Philadelphia.—“Six sporadic cases from domestic causes.” (Dr. Jewell.)

1858, Savannah. (J. J. Harris, *Savannah Journal of Medicine*, 1859.)

1859, New Orleans. “Incontestably of local origin.” (A. E. Axson, Official Report of Board of Health, 1860, p. 17.)

1860, New Orleans. “Sporadic cases have occurred which

cannot be attributed to importation." (C. Delery, Annual Report Board of Health.)

1863-4, New Orleans. "Yellow fever, the most dreaded scourge of New Orleans, was unequivocally generated in a large number (25) of filthy and unventilated gun-boats and other naval vessels lying idly at anchor within a mile of the densest portion of the city." (E. Harris, Report.)

1864, Savannah.—Whilst we were completely blockaded from the outside world, cases of yellow fever originated here from local causes.

1866, New Orleans.—"The Board (of Health) was unable to trace its introduction from without in the first case." (S. A. Smith, Report Board of Health.)

1868, 1869, New Orleans.—"Three deaths each year. The disease originated at home. (Report Board Health, 1869, p. 28.)

1870, New Orleans.—"No direct connection with foreign importation was established." (Jos. Jones' Lectures, 1879.)

1871, Charleston (212 deaths).—"The origin of the disease could not be traced to foreign importation." (Rob't Lebby, Rept. H. O.)

1875, New Orleans (100 cases).—"Started in the Second District. No trace of importation." (Annual Report Board Health.)

1876, New Orleans, (74 cases).—"Careful examination by the President of the Board of Health, by the sanitary officers and by myself failed to discover in the first case the slightest clue to foreign infection *from any ship, person, or material*; this applies with equal force to the following series of cases." (Dr. Jos. Holt, Sanitary Inspector in analysis of yellow fever in New Orleans, 1876.)

1876, Savannah.—"From domestic causes." (A. Woodhull, American Journal Medicine, Se., 1877. J. J. Waring,



(The epidemic at Savannah, 1878 p. 28, etc.) J. C. LeHardy, (Transactions Medical Association, Georgia, 1878.)

These quotations will give you an estimate of the value of the historical assertions made by the "Board of Experts." If you now look at proposition 31, "That the most frequent agency in the dissemination of yellow fever is found in yellow fever patients," it is so patent an error to any one of you who has treated cases of the disease among refugees, without "*dissemination*"—that discussion is deemed unnecessary. It is nevertheless on such assertions that the Centralizers are now striving to establish in Washington a separate department for quarantine purposes.

#### THE FUTILITY OF QUARANTINE.

I will next endeavor to show you, from historical data, the futility of quarantine in keeping yellow fever from our shores.

Let us, in the first place, consider the enormous length of seacoast to be guarded! From Canada to Mexico! From California to Alaska! To effectually quarantine our Atlantic and Gulf coast, and prevent the landing of boats and people from "infected ports," an immense army of coast guards would be necessary, a numberless fleet of quarantine vessels would be required! But we will here consider the results of quarantine only in a few cities where it has been established for a long time, and enforced with great rigor:

In New York, quarantine was enforced as early as 1758. (J. M. Woodworth, on Quarantine.) In 1784 the laws and regulations were as rigid and severe as those existing in the Mediterranean ports against the plague. It provided, among other things, "that all vessels coming from any place where yellow fever existed, or on board of which it shall have occurred during the voyage, shall be quarantined for at least thirty days after arrival, and twenty days after their cargo

shall have been discharged, and shall perform such further quarantine as the health-officer shall prescribe. All vessels from any foreign country, or from any place in America, which passes south of Georgia, between the first day of April and the first day of November, shall be subject to such quarantine and other regulations as the health-officer shall prescribe." Quarantine laws were remodeled in 1823, again in 1846, and are now so *simplified* that the commerce of the city is not impeded by their enforcement. In fact, it rests altogether with the health-officer, who is much benefitted by the number of ships which arrive, to say whether they shall be detained at quarantine at all. Yet New York has had no yellow fever epidemic since the year 1822.

In Philadelphia, in the year 1700, a law was enacted by King William III. to protect Philadelphia from contagious diseases. (LaRoche, II, p. 730.)

In 1742, an act of King George authorized the purchase of Province Island and the erection of a Lazaretto. (Amer. Jo., I, p. 169-70).

In 1774, the Colonial Assembly made new quarantine regulations, but these laws and regulations remained imperfect until the occurrence of the terrific epidemic of 1793, when they were remodeled, made very stringent and strictly enforced. Nevertheless, the history of that city shows that from the year 1699 to 1741, from 1747 to 1762, and from 1762 to 1793, it was exempt from yellow fever, whilst commercial intercourse with the West Indies was generally unrestricted; that from and after 1793 to 1823, during which time quarantine laws were rigidly enforced, yellow fever raged eight times. "Why was not the yellow fever imported oftener before the year 1793," asks Dr. Rush, "when it is known to have been raging almost every year in the West Indies?"

In this city (Philadelphia), as well as in New York, the old and stringent quarantine system has been replaced by such an one as does not impede commercial relations with the West Indies and South America.

In 1854, on account of the prevailing epidemic at the South, quarantine measures were enforced; nevertheless, the fever made its appearance, and while the introduction by sea was prevented, cases reached us from Savannah and other infected places by land, and as several times mentioned, failed to spread the evil." (LaRoche, II, p. 543.)

"In Philadelphia, where since 1793 we have been, notwithstanding the strict observance of quarantine regulations, visited by the disease, the latter was not introduced from 1762 to the above mentioned year, although during that long period of thirty years the intercourse with the West India ports, where the fever prevailed, was as extensive as it has been since, and the restrictions imposed were scarcely more than nominal. . . . In no place has the failure of quarantine in excluding the disease been more notoriously exhibited than in the city of Philadelphia (from 1793 to 1823.) (Laroche, Vol. II, 541-3-4.)

In Charleston, where quarantine has been fully tried, where it has at times been very rigidly enforced for years in succession, during the last as well as the present century, it has utterly failed in preventing the occurrence of yellow fever. Speaking of the years 1793, 1798, and 1803, when the disease prevailed in the epidemic form, Dr. Tucker Harris, of that city, observes: "It will be in vain to pretend that a more strict attention could be paid to the quarantine order." (*Barton's Med. & Phys. J.*, II, p. 26.)

From 1821 to 1858, quarantine was at times rigidly enforced, at others almost nominal (in Charleston), and although the commercial relations between that city and the



West Indies steadily increased, we find no difference whatever in the mortuary records—few years having passed without yellow fever occurring, either in the sporadic or in the epidemic form. Dr. L. Dawson, who was health officer of the port from 1848 to 1868, states, in his letter, that in his official career, he has observed that quarantine did not affect the outbreaks of yellow fever one way or the other; and Dr. Lebby, the present health officer, writes: “From 1849 to 1859, the quarantine was carefully enforced, but the sanitary condition of the city was defective, and there were five epidemics of yellow fever, with a mortality of 2,003. From 1868 to 1878, when we had the advantage of rigid sanitary regulations within the city, and the enforcement of quarantine outside its limits, the mortality by yellow fever amounted to but 275, including the Port Royal deaths (25).”

Quarantine was established in Natchez in 1819, as soon as it was known that yellow fever prevailed in New Orleans. It was rigidly enforced. “No boats arrived from New Orleans, nor were any allowed to land; notwithstanding this, the epidemic began on the first day of September, with several cases at the upper end of Main street.” (Drake, Vol. II, p. 265.) “After the epidemic of 1823, quarantine regulations were abandoned, and for a considerable part of that time (from 1823 to 1837), as Dr. Monette (a contagionist) informs us (p. 75), cases were taken from New Orleans boats, through the town, to the hospital. Still, no cases occurred from 1829 to 1837, although the fever was epidemic four times in New Orleans.” (Laroche, Vol. II, 542.)

The Legislature of Louisiana passed a quarantine law in 1817, which went immediately into rigid operation; yet there were 800 deaths from yellow fever that year. In consequence of this, the Legislature repealed the quaran-

tine law. (Dowler, p. 245.) In 1819, and in 1820, the yellow fever having reappeared, with a mortality of 425, and 400, the quarantine law was again strictly enforced. In 1822, the disease set at defiance all restrictive measures, and prevailed extensively—the mortality from yellow fever being 808. “Indeed, it has long been found in that city, that the prevalence of yellow fever is not influenced by such quarantine as has so far been enforced.” We know that during the war between the States, when the port was thoroughly blockaded, it originated both in the city and among the shipping, as was conclusively proven by Dr. Elisha Harris.

“On the other hand,” says Prof. Jos. Jones, (in clinical lectures, 1879,) “many writers have held that the disease was unknown in this city from its foundation in 1717 to 1796, during which time there was no quarantine, whilst there existed frequent and unrestricted intercourse with the West Indies.”

“It has prevailed (in New Orleans) when quarantine laws were strictly enforced; it has prevailed during the war (with England) when, from want of arrivals, quarantine was not required; it has failed to prevail at periods when no obstruction was placed on the intercourse with infected places.” (Laroche, II, 543.)

“In Mobile, quarantine was enforced in 1854 as stringently as the purest contagionist could desire, and yet the disease broke out and prevailed to a small extent.” (Nott.)

In Baltimore, after the epidemic of 1819, the city authorities, at the suggestion of the District Medical Society, modified the quarantine regulations then existing, and deprived them of their pristine severity against passengers and crews, who, in the language of the Society, “should not be deprived of the privilege of free communication with the city.” (Letters to the Mayor, p. 186.) “And yet no fever of

any account has since occurred in that city, and those cases as have appeared were clearly proven to have arisen from local sources of infection." (Laroche, Vol. II. p. 741, 742.)

Dr. Fenner, (in Trans. Med. Ass'n 1849, p. 625,) says: "As for the old delusion that yellow fever is brought from the West Indies, VeraCruz, or any other place, I need only say that the experiment has long since been fairly tried and signally failed."

It is needless for me to tell you that in the West Indies, and in almost every European country, quarantine against yellow fever, no matter how strictly it was enforced and how rigid were the regulations, has so signally failed, that it has been either entirely abandoned, as in England and France, or become a matter of form and profit.

If we look into the history of quarantine when used as a means of protection against cholera, we find exactly the same results. What has been the experience in India, the habitat of that disease? Doctor Cunningham, the Sanitary Commissioner with the Government of India, states, "that quarantine was tried in 1872, (when cholera existed as an epidemic) in the hope of protecting a number of the cantonments in Upper India; that in many of them it signally failed, and that in no single instance is there any ground for believing that it was productive of any good."

And Edwin Chadwick, C. B. says: "A reactionary course that has threatened interference with the course of sanitation in India, has been *in directing attention to personal contagion as the chief means of preventing the spread of the disease, by the re-enforcement of quarantines, the working of which we had examined, and upon that examination had declared them to be useless and mischievous, even upon the hypothesis on which they were maintained.*" (J. J. Waring, Epidemic of 1876 in Savannah, p. 44.)



I could extend these proofs, not only of the failure of quarantine in preventing disease, but of its injurious effects in a sanitary and political point of view, *at infinitum*, but my object being simply to convince, I believe I have said enough.

#### THE PREVENTION.

As far back as medical literature will enable us to trace epidemics, whether of the plague, of yellow fever, or of cholera, we find that scientific research and practical experience have been successful in preventing their dreaded visitations, only when cleanliness, thorough drainage, wholesome food, pure air and good water have been secured. I have not yet seen on record, a single instance where sound sanitary measures had been resorted to and enforced, in cities, towns or villages, in any latitude or longitude, in which recurrence of these epidemics has not been prevented.

The plague which used to occur as frequently in the cities of Southern Europe, as yellow fever does now in our Southern States, has long since been forgotten by the people of those countries. Has this been the result of quarantine? History says not; but history does say that, from the moment sanitary regulations were enforced by the authorities, and the cause of the disease was removed, the plague ceased to decimate the population. On the other hand, history shows that, during a period when rigid quarantine was enforced in these same localities, nearly one-half of the population was swept away by the pestilence.

After the terrible ravages of the plague in London in 1665, a fire swept away a large portion of the most thickly populated part of the city—upwards of 13,000 houses. When the burnt portion was rebuilt, the streets were made wider, the houses more roomy, and at the same time sanitary regulations were inaugurated. London has not been revisited

by the plague since that date, and the authorities learned through the experience gained by this conflagration, the good effects of sanitary regulations, which they have since carried to such perfection as to reduce the rate of mortality from 1 in 25, as it was in 1700; 1 in 21, in 1751; 1 in 35, in 1801, till we find the rate of 1 in 45 in 1860, and a further diminution since that date: in 1875, population 4,207,167, the total death rate was 22.7, and only 3.7 from zymotic diseases. (Report State Board Massachusetts 1876, p. 551.) And in 1877, 21.09 per 1,000 of the population.

Almost all European nations, appreciating the good effects of hygienic measures, have adopted them, and the diminution in the rate of mortality has been in almost direct ratio to the amount of attention paid by the governments to sanitation.

It is also a well known fact that, through improvements in the hygiene of almost all European countries, the average longevity has been increased by more than ten years during the last three-quarters of a century.

Let us inquire why our own cities of Boston, New York, Philadelphia and Baltimore are now exempt from yellow fever epidemics, to the visitation of which they were all subject in the beginning of this century?

In the preceding pages, it has been shown that this desirable result was not worked out through the agency of quarantine, but if we look into the records of those cities, we shall find there that the civil authorities, heeding the advice of the medical profession, have instituted and enforced sanitary regulations, by which means the foothold for yellow fever has been destroyed.

Boston has arrived at the condition of exemption from yellow fever epidemics since 1805. In this city, also, we see that the institution of the sanitary regulations, above re-

ferred to, has caused a diminution in the rate of mortality from general causes: thus, in 1855, it was one in 39; in 1863, 1 in 41. In 1874, the average was 24.3 per 1,000. (Report Massachusetts Board of Health, p. 496.)

In Baltimore, the authorities recognizing the futility of quarantine, after the epidemics of 1819, removed quarantine restrictions on persons, and enforced sanitary measures, and by placing the filthy localities in a good hygienic condition, have prevented the return of epidemic yellow fever into that city.

In New York we find that although the authorities paid some attention to sanitary laws in the early part of this century, and succeeded in placing the city out of the reach of yellow fever epidemics after 1822, the hygienic measures adopted did not diminish the rate of mortality, from all causes, until 1864, when they organized a Metropolitan Board of Health, and under this organization succeeded in enforcing sanitary laws on a scale commensurate with the size and importance of the city, and the result has been that from a mortality in 1866 of 26,815 there was a diminution to 24,601 in 1869. (Report Board Health, for 1869.)

In Philadelphia, the field upon which the fiercest contests between the "contagionists" and "non-contagionists" have taken place, where, in consequence of this struggle for supremacy the medical profession has always been divided, the local authorities were also pretty early alive to the necessity of sanitary laws and regulations, but, probably from that very division among their medical men, sanitary measures were not urged with the vigor united counsels would have secured, and, therefore, they remained liable to epidemic yellow fever until 1853; since that date, however, the hygiene of the city has been so much improved by sanitary measures, that its death-rate compares favorably with that of any city of its size.



Let us now turn our attention to our Southern cities, and first and foremost to Charleston, for so many years the hot-bed of yellow fever. Doctor Lebby, the health officer of the port for the last ten years, writes: "In my annual report to the Legislature I show the benefits of a comparatively *clean city*, and a rigid enforcement of quarantine regulations for a period of twenty years. From 1849 to 1859, a period of ten years, the quarantine was carefully enforced, *but the sanitary condition of the city was not satisfactory*, drainage was defective, privy vaults were bad, and no sewers of sufficient capacity to relieve the soil of that excess of moisture which necessarily existed from such defects. During those ten years there were five epidemics of yellow fever and 2,003 deaths." Reviewing the past ten years (from 1868 to 1878) he says: "There have been but two occurrences of yellow fever (1871) which could not be traced to importation, and in 1874 a few sporadic cases occurred in Meeting street, the most populous part of the city; in 1876, two cases of persons from Savannah. *"In the last two instances it did not spread but terminated where it originated."* "During the last ten years just mentioned, there was one epidemic (if 1871 can be so considered,) and but 275 deaths, including the 25 of the Port Royal deaths." "You can draw the comparison of the twenty years, and perceive the advantage of *rigid sanitary regulations* (which were enforced) within the city, (the last ten years,) and enforcement of quarantine outside of its limits." "In accepting my present position, ten years ago, it was to test this question of 'importation' and 'local origin.' For this reason I have enforced the most rigid quarantine that has ever been enforced in this harbor . . . . and I have satisfied myself that yellow fever *can originate* within the area termed yellow fever zone, when *sanitary precautions are neglected by the municipal authorities.*"

Comment on this is unnecessary.

In Savannah, from the mortuary and hospital records, we find that, from 1804 to 1820, the rate of mortality was 1 in 14 of the population. "There were cases terminating in black-vomit occurring every year." In 1817-19-20, yellow fever occurred as an epidemic. In 1821, Dr. Daniell says, "the low-lands (surrounding the town) were drained, and put in very fine order, sanitary regulations were enforced, a board of health took under its special care the condition of the streets and lanes, and great attention was paid to cleanliness," and from that date until 1854 no epidemic recurred.

This year (1854), the sanitary condition of the city and its environs had been much neglected, according to Drs. Read and Arnold. In 1858, according to Dr. J. Harriss and others, there was ample local cause to produce it; whilst, in 1876, the laws of hygiene seemed to have been entirely forgotten by the authorities, the drains being neglected and filled with debris, an immense bed of stagnating water and bogs, acted on by the sun, surrounded the city, north, east and west; and, besides this, by the investigations of Dr. Woodhull, we are made acquainted with the filthy condition of the privies and sewers, which, according to his views, were sufficient to produce the epidemic.

Fatal experience having aroused the State and city authorities from their lethargy, sanitary measures and drainage have been diligently prosecuted since, and have succeeded in reducing the rate of mortality to—

1877 (census of 1870)—Whites, 1 in 43 79.100; blacks, 1 in 24 4.10.

1878 (census of 1870)—Whites, 1 in 41 33.100; blacks, 1 in 21.

Savannah ranks among the healthiest of cities South, save for the visitation of epidemic yellow fever, and, thanks to

the exertion of the city authorities, and its sanitary board, and the commissioners of drainage, it is to-day in such a condition that yellow fever, if "imported," could no more prevail there as an epidemic than could the seeds of any plant spring up and bear fruit if seminated on a barren rock.

Let us pause a moment to enquire how it happened that St. Augustine, although so very near the "source of contagion," and a very old town—built in 1565—has been visited with but three yellow fever epidemics—1807, 1821, and 1839. A bird's eye view of the town would at once solve the problem. Built on a narrow shell (*coquina*) bluff, surrounded by salt water, its streets frequently washed by tropical rains, it would require very special conditions for yellow fever to have a lodging there. I have been unable to find an account of the epidemic of 1807. In 1821, we find that the epidemic began along the river, where the soil was low and damp, and that in 1839 it began both in vessels lying in the harbor, and in several old buildings, situated in the back part of the town. (Strobel, pp. 131, 152; Monette, p. 123.)

And now we come to the city of New Orleans, so famous in connection with yellow fever, and where the mortality from that disease has always been enormous. Why has it been so prevalent here? When we know the nature of the made-up soil upon which the city is built, on a level which lies below the high water mark of the Mississippi river; how near the water-bed is to the surface of the soil, and as a consequence of this, the great difficulty in draining off the sewage and rain water from its streets, it is easy to understand the reason why yellow fever, cholera, or any other epidemic disease should occur.

*The secret lies in the extraordinary difficulty and expense*



*to be encountered at all times in keeping the city in a sanitary condition.*

That the city authorities have made progress in this direction, and that the State is alive to its necessity, may be seen, not only from the annual reports of the State Board of Health, but in the records of mortality from yellow fever during the last forty years. From 1839 to 1859, the number of deaths caused by the disease, was 26,446, whilst from 1859 to 1879, including the last epidemic, only 8,585, or a diminution of 17,861 to be placed to the credit of sanitation, as may be proven by the results obtained during the war, when the city being under the scepter of military rule, was kept as clean as one of our country's best sanitarians, Dr. El. Harris could make it, from 1861 to 1866, the mortality from yellow fever in the city amounted only to 11 cases!

But why, we ask, did the epidemic of yellow fever occur in 1878? Enquire of the inhabitants as to the sanitary condition of the city, and you will soon discover the solution; even the Yellow Fever Commission could not deny, when the question was asked at the meeting of the American Health Association in Richmond, that not only was New Orleans in a filthy and neglected condition, but that the same was the case in Vicksburg, Memphis, and other localities along the Mississippi Valley, visited by the pestilence.

Just look at India! The ravages of cholera were combatted for years, and quarantine strictly maintained to prevent the spread of the disease, but all was ineffectual until sanitary laws were substituted for the "cordon sanitaire," the cleansing of common lodgings, for the burning of beggars' clothes; drainage, pure air, wholesome food and water, for quarantine guards. Under Lord Shaftesbury's act, they soon put an end to cholera epidemics which had hitherto

been believed to originate solely through human intercourse, in other words, from "contagion." "By the enforcement of sanitary measures, Robert Ellis, of Madras, first stamped out cholera from the great fair at Congeem. The Indian government has now placed all such large assemblies of people under strict sanitary supervision. The good results of this policy were illustrated in a fair at Manieckpur, in Oudh, attended by 125,000 persons with 40,000 bullocks. Cholera was prevalent in the district at the time, *but there was an entire absence of cholera at the fair.*" (*Jo. Soc'y Arts*, p. 529. J. J. Waring, p. 46.)

I could thus detain you a whole day in quoting from the pages of medical and sanitary works, passages all pointing to the same beacon—Sanitation—as the only preventive against epidemic diseases; but the practical bearing of the question is to ascertain in what manner this sanitation can be best accomplished here. The experience of those who have trodden the path before should afford us a lesson, which we should adapt to our climate, our people and our institutions.

Some of our States have already established Boards of Health. This should be done by every State, especially if subject to yellow fever epidemics.

But Boards of Health, to be efficient, must—

(1st.) Be composed of practical men, well versed in sanitary sciences, who will devote time and energy to the work.

(2d.) They should be clothed with sufficient power to enforce their mandates.

(3d.) They should be provided with ample means to defray all necessary expenses.

(4th.) They should have in their employ and under their control a thoroughly educated and practical civil and sanitary engineer, a thorough chemist and geologist, and a board of commissioners of health in every county.

By utilizing convict labor, millions of acres of our best land, now lying under water and the source of that malarial poison which causes the largest proportion of our mortality, could be reclaimed, and would become a source of revenue more than sufficient to defray the expenses of the boards.

The police and other sanitary regulations of cities and towns should remain, as they now are, in the hands of local boards of health, but working in accord with the State Board.

Ships and vessels, from whatever port they may come and irrespective of the seasons, should all be subjected to *sanitary inspection*, and, when necessary, *sanitation should be enforced*.

The sick should be sent to hospitals, the infected detained, the cargoes discharged, when necessary, and the holds disinfected at places designated for that purpose.

The system of privies and of sewers should be under the supervision of the sanitary engineer of the State Board.

The river and drinking water, when found by the State chemist to be polluted, should at once be purified, if feasible.

Ventilation of houses and public buildings should be enforced in cities, towns and villages, and the overcrowding of tenements should not be allowed.

The laws against adulteration of food, and the sale of unwholesome meats and vegetables, should be rigidly enforced.

When such a system of sanitary laws are once provided, and enforced by the several States, the National Board of Health now created will become a valuable auxiliary as an advisory body. Its duties should be confined to the collection and dissemination of vital statistics and documents relating to hygiene; to the examination of places, whether



in the United States or foreign countries, when deemed necessary to obtain facts relating to sanitation; to the inspection of the harbors of the United States, and recommendation of such measures of sanitation as may be necessary; to the examination of the channels at the mouths of rivers, and recommendation to deepen the channel when necessary to secure proper drainage; and, lastly, to recommend the adoption of such laws as may seem advisable to secure the object of its creation—the Public Health.

In this manner, I believe, Mr. President, that we can prevent the reappearance of epidemic yellow fever and cholera in the States subject to their visitations; and that restrictions to commerce, through long detention at quarantine, being found useless, will be abolished. When this shall have been accomplished, the health and prosperity of our people will be secured.

#### POLITICAL ASPECT OF QUARANTINE.

Having demonstrated the uselessness of quarantine as a measure of protection from infectious diseases, we will consider the cost of such quarantine as would need to be established to keep “contagious and infectious diseases from the United States.” The Board of Experts appointed by Congress recommend that quarantine establishments should embrace:

1. A residence for the medical officer and his assistants.
2. A hospital having separate wards for those sick with infectious and non-infectious diseases.
3. A building for the accommodation of well passengers and crews.
4. A building in which the baggage and clothing may be cleansed and disinfected.
5. Suitable buildings or sheds for receiving freight discharged from infected or suspected vessels.

6. Boats and apparatus for boarding and disinfecting vessels.

And to this must of necessity be added :

7. The purchase of a site to build upon.

8. The building of wharves (and break-water, when necessary).

9. The furniture and material required for the use of such establishments.

From the data I have been able to collect, it would be impossible to deduce a correct estimate of the cost of such establishments, on account of the difference in the value of lands, of the facilities for constructing wharves, and the requirements proportionate to the wealth and importance of the ports. But suppose that we can *approximate* to a just estimate. Let us divide all ports of entry along the Atlantic and Gulf coasts of the United States into two classes, allotting only the most important to the first class, and considering all others as belonging to the second. According to an official list furnished me by the Commissioner of Customs at Washington, Mr. N. Johnson, I find the number of these ports to be 84, of which 25 may be considered first-class, and the remaining 59 as second-class.

Concerning New Orleans, Doctor Joseph Jones says, after a personal inspection of the premises, "that the requisite amount for constructing the necessary wharves, docks, warehouses and hospitals, at quarantine stations, would be \$100,000." But New Orleans being already in possession of the site and of old buildings for quarantine purposes, we must add to Doctor Jones' estimate a fair valuation of the site, furniture, material, etc., say \$20,000, making in all \$120,000 as the standard requirement of a first-class quarantine establishment, from which we deduce the mean value of the second-class requirements to be one-third of that

amount or \$40,000. Reckoning, then, the cost of the twenty-five first-class quarantine establishments at say \$3,000,000, and that of the fifty-nine second-class at \$2,360,000, we have the sum total of \$5,360,000 to be expended at the outset on buildings and sites alone.

What would be the annual expenditure necessary to keep up efficiently these eighty-four quarantine stations it is now impossible for me to say, for after making diligent enquiry I have failed to procure reliable data relative to the cost of quarantine institutions now in operation.

I learn from Dr. A. Clendinen, of N. J. that the charges at the port of New York are, for examination by quarantine officer, for each foreign vessel, six dollars; for each coaster, three dollars; for fumigating each bark, six dollars, and each steamer, eight dollars; and by estimating foreign and coast shipping arriving at that port, each year, I conclude that the amount received by the quarantine officer annually must be considerably over \$100,000.

In New Orleans, in the year 1870, the amount received from vessels for quarantine charges was \$27,939. In 1871 it was \$28,907. In 1878—\$28,864.03. (Reports Board Health.)

In Savannah, where the system of quarantine is yet very deficient, and where vessels are sometimes detained for forty days, the expenses for 1878 were \$8,537, including the erection of two wooden buildings *for the keeper and for hospital*. (Mayor's Report.)

Taking the average amount received from vessels at \$30,000, for quarantine charges in first class ports, we would have an annual tax of \$750,000, and putting the receipt of the second class at the low figures of \$4,000 each, or \$236,000 for all, we have a total of \$986,000 annually to be paid by American consumers of goods imported from countries



where infectious or contagious diseases are *supposed* to prevail. But we ask, will these 84 quarantine stations be sufficient to prevent the landing of persons and goods on our shores? Any one at all conversant with the thousands of inlets, creeks, points, islands and sand banks which succeed one another along our coast, will appreciate at once that—unless the *coast be well guarded* by myriads of vessels plying constantly from point to point, or by a regular cordon of coast guards—smuggling crafts, which daily evade the revenue boats and custom officers will, according to contagionists, bring with them from the West Indies the germ of yellow fever, and therefore the whole expense of our 84 quarantine stations will be thrown away; and for the cost of keeping coast guards, or government vessels, I refer you to the actual cost of our army and navy.

But the cost is not the principal objection to a system of Federal Quarantine. By the act of Congress creating the present "Provisional National Board of Health," *it is required to be composed of seven members to be appointed by the President of the United States, not more than one of whom shall be appointed from any one State, and it can hardly be doubted that any permanent Board that may be established, will be organized on a different plan.* It can also scarcely be doubted that this Board will be vested with powers to close against shipping from any country where contagious or infectious diseases are known or supposed to prevail, *any port through which, in their judgement, such diseases are most likely to be introduced into this country, either by positively prohibiting the entry of such vessels at those ports, or imposing upon them such quarantine restrictions as would amount to positive prohibition.*

It is well known that according to the recently promulgated theories, the Southern States are *peculiarly liable* to danger

from the *importation* of yellow fever, against which disease, the whole force of this movement is evidently directed, in spite of the attempt to hide this fact under the general term, "Infectious or Contagious Diseases;" and that, also according to the same theory, the virulence of this "contagion" increases as the locality in which it exists is situated further South.

If, now, the National Board of Health be organized by the appointment of one man from each State in the Union, it is evident that the States in which yellow fever most commonly makes its appearance will have but a small representation in it, in comparison with that of the other States, and would have but little voice in directing its action. But it can hardly be supposed that a Board so unwieldy as this would be established. It is likely to remain as it now stands—seven from the States, and *four* representing the army, navy, marine service, and department of justice.

The President, by means of the appointing power vested in him, could reduce the representation of the whole Southern States to one member; pleading that the superior value of the vested interest in the other States entitled them to demand perfect protection. What would be the effect of putting such power into the hands of the commercial rivals of our Southern seaports? To one, who having visited the wharves of Savannah before the war, and seen the number of ships discharging their valuable cargoes of sugar, molasses, coffee, and other products of the tropical countries, should he return there now, and note the almost entire absence of such ships, the answer is unnecessary. Even under the present local regulations, by which vessels from South America and the West Indies, are, during the summer months, detained at quarantine for from four to forty days, our importations have dwindled to a few small cargoes of fruit, which sometimes

decay before reaching the city, and an occasional cargo of coffee in each year, sharing the same fate.

Of course, much of the falling-off in our imports is due to the increased railroad facilities, by means of which the people in the interior, are enabled to procure the goods which they need, at as cheap a rate from New York as they can from our own ports; *but still quarantine is an important factor in producing this result.* Vessels which carry lumber and naval stores from our ports to South America and the West Indies, take return cargoes to New York, Baltimore or Norfolk, rather than risk a long detention at our quarantine stations, and this is why there are no importing houses in Savannah and Brunswick; this is why New York, Baltimore and Norfolk can sell to the people of our interior cheaper than can the cities of our own seaboards. But, Mr. President, this is but one aspect of the subject, and viewing it in this one aspect, I might write pages of argument against the policy of establishing a National Board of Health, on the plan which is evidently held in contemplation by those having the matter in charge. I will detain you but a few moments to consider it from another standpoint. Let a port be carefully closed and guarded, for a large portion of each year against infection, and it will soon be bruited abroad that the port itself is UNHEALTHY; that the measures which are ostensibly taken to guard against the introduction of disease, are really meant to hide from the world the fact that it is a plague spot upon the country; that its climate is so deadly that none but those accustomed to it from infancy can venture within its influence, without imminent danger of losing their lives. There is an old adage: "Give a dog a bad name and it will hang him," and its application is apparent to any one who has ever observed the effect of a rumor, that yellow fever had broken out in any city. In spite

of the protestations of the citizens and newspapers, that city is immediately pronounced to be a death-hole. The published reports of the number of deaths, with the names of persons, and the disease of which they died, are read with distrust and suspicion, and the injury to its trade and commerce is incalculable.

Suppose such report to be circulated each year concerning all the Southern shipping ports, and who can doubt that the Northern cities could, by means of their superior wealth, and their control of the great railroad system of the country, divert even our cotton to their own ports; and so, in course of time, destroy absolutely the commercial importance of those of Georgia and of the entire South.

#### CONCLUSIONS.

And now, gentlemen, in conclusion, let me urge upon your attention the importance of this subject. To you, as medical men and scientists, I have addressed myself, laboring to prove that quarantine ever has been, and ever must be, ineffective to prevent the outbreaks of epidemic diseases—that the causes which lead to the production of epidemics lie at our own doors, and that the means for their prevention are in our own hands. If I have spoken principally of yellow fever, it is because with that disease we are most familiar, and from it have most to fear. Let me now appeal to you, as Georgians, regarding with jealous scrutiny everything which affects the interests of your native land, to use the whole influence of this Association with our Senators and Representatives in Congress, to induce them to stamp with the State's disapprobation any measure which may come before that body seeking to give to a "Bureau of Public Health" the power to prevent free ingress to any port in this country, on the plea of thereby preventing the introduction of an infectious disease. When the guns of the Confederacy, which for years had thundered their defi-



ance to the foe, were at last silent, when Lee and Johnston, and their handful of brave followers, had laid down their arms, and the cause of State Rights seemed to be utterly lost, and the States themselves to be reduced to the condition of military provinces, Georgia, unappalled by the apparent ruin of all her hopes and prospects, set bravely to work to find means by which to drive from their usurped seats the thieves and miscreants who had seized upon her capital, and who, in the interest of her enemies, sought to crush her beneath a burden of debt, to dishonor her in the eyes of the world, and to involve in a common wreck her manufactures, her agriculture, and her commerce.

Through her fortitude and self-reliance, her courage and resolution, she succeeded in her efforts, and this day, but fourteen years since the surrender, she could, by the sale of her visible assets, pay off her entire indebtedness without being forced to raise one dollar by taxation; and her four per cent. bonds find a ready sale in the market, her manufactures are flourishing, while the ocean is white with the sails of the hundreds of ships that, year after year, visit her ports and bear away to other lands, the products of her fields and her forests. When the soldier held her in the grip of his mailed hand, she lifted her head from the dust, and refused to surrender the remnant of liberty that was still her own. Will she now, in strange contrast to her former heroism, fleeing in blind terror from a foe whom "she need but face to conquer," yield up to the Federal authority, the right to control her police regulations? Will she give into the hands of her commercial rivals, the power to close her sea ports during an indefinite period of each year, against a trade from which thousands of her citizens draw their subsistence? Some who have not sufficiently considered this subject, may say, that the question of quarantine is a matter which affects

only the seaboard, and that with it the interior of the State has nothing to do. If this were true, still, has not the seaboard sent thousands of brave men to "*illustrate Georgia?*" Has it not spent millions for the benefit of the whole State? and should not the whole State rise to save the seaboard from oppression?

But it is not true that the seaboard only would suffer from unjust restrictions put upon commerce. Like the natural, so the political body must suffer, if one of its members or organs be deprived of its functions. True, Atlanta has been made by act of Congress, prospectively a Port of Entry, but can an act of Congress bring ships hundreds of miles from their homes on the rolling waters, to the doors of her warehouses? The goods which Atlanta exports and imports must be handled at the ships, must incur expenses at that point, and in transportation to or from it, and to that extent, Atlanta, and through her, Georgia must pay tribute to the seaport, at which her goods are shipped or disembarked. Nations placed by their geographical situation at a distance from the sea, have fought and struggled for centuries, to obtain a gate-way through which to communicate with the rest of mankind, without being forced to pay tribute to neighbours, whose country might happen to lie between them, and the great highways of the world. But yesterday, we beheld the giant powers of Russia and England, arrayed against each other, the first endeavoring to snatch, the second striving to keep beyond her reach, the seaports, of the effete and fast decaying Turkish Empire.

Georgia, with four seaports and a coast ample enough to build many more, may well be considered a maritime State—do we so undervalue this advantage, to attain which, other people so lavishly expended both blood and treasure; that we will voluntarily submit to an abridgement of the power, which its possessions gives us?

I am not here, Mr. President, as a partisan, advocating the claims of this or that theory, or of one or the other sections of the State—I come not to ask this Association to mount with me upon some pet hobby; I come as one, who loving the truth for her own sake, and having at heart the interest of the whole Commonwealth, has sought diligently for information bearing upon a subject of vital importance to that interest. I have laid before this Association—before the collective wisdom of the medical faculty of Georgia, all facts and opinions gleaned from well-known writers—and I ask for them calm and dispassionate judgment; I ask, that should their conclusions agree with mine, they will use the whole moral power, which they can exert in the community, to have the Legislature enact such sanitary regulations, as will leave no excuse for interference, by the Federal authority, with our domestic affairs. Let such attention be paid to the laws of hygiene, that we may truthfully say to the world, that the climate of Georgia is so healthful that even if cases of infectious disease should be brought to her shores, it need cause no alarm to her citizens; because, not finding an atmosphere fitted for its propagation, it must speedily disappear. Let this be done, and thousands will come from all parts of the world to till our rich soil, to fell our forests, and to take from our mines and quarries their valuable deposits, then Georgia will assume that place, and obtain that influence, in the affairs of this continent, to which her geographical position and her resources entitle her.





